

Claims

The following is a copy of Applicant's claims that identifies language being added with underlining ("___") and language being deleted with strikethrough ("—"), as is applicable:

1-13. (Canceled)

14. (Currently amended) An assembly, comprising:

~~an electrical component having a plurality of contacts provided thereon; and~~

an electrical device having a ledge on which a plurality of discrete, spaced contact terminals are provided, ~~wherein at least one of the contact terminals is electrically connected to at least one of the contacts provided on the electrical component; and~~

a circuit board having a cavity that is sized and configured to receive a portion of the electrical device and a plurality of contacts provided adjacent at least one edge of the cavity;

wherein the electrical device contact terminals are arranged in direct opposition to the circuit board contacts when the electrical device is disposed within the circuit board cavity.

15-17. (Canceled)

18. (Currently amended) The assembly of claim ~~17~~ 14, wherein the at least one contact terminal of the electrical device and the at least one contact of the ~~electrical component~~ circuit board are soldered together.

19. (Currently amended) The assembly of claim ~~17~~ 14, wherein the at least one contact terminal of the electrical device and the at least one contact of the ~~electrical component~~ circuit board are adhered to each other with electrically conductive adhesive.

20. (Previously presented) The assembly of claim 14, wherein the electrical device is an atomic resolution storage (ARS) device.

21. (Currently amended) The assembly of claim 14, wherein the ~~electrical component~~ circuit board is a printed circuit board (PCB).

22. (Previously presented) The assembly of claim 14, wherein the contacts of the ~~electrical component~~ circuit board comprise contact pads provided on a surface of the ~~electrical component~~ circuit board.

23. (Previously presented) The assembly of claim 14, wherein the electrical device comprises two ledges formed on opposite sides of the electrical device, each ledge comprising a plurality of discrete, spaced contact terminals.

24-26. (Canceled)

27. (Currently amended) The assembly of claim ~~17~~ 14, wherein the electrical device comprises a top layer, a middle layer, and a bottom layer, wherein the top layer is smaller than the middle layer such that the middle layer forms the ledge.

28. (Currently amended) The assembly of claim 27, wherein the portion that is sized and configured to be received in the cavity of the ~~electrical-component~~ circuit board is the top layer of the electrical device.

29. (Currently amended) The assembly of claim 28, wherein the top layer is sized and configured such that the top layer fits completely within the ~~electrical-component~~ circuit board cavity such that contact terminals of the electrical device contact electrical contacts of the ~~electrical-component~~ circuit board.

30. (Currently amended) An assembly, comprising:
~~an electrical-component~~ a circuit board having a surface that includes a plurality of contacts;

an electrical device having a top layer, a middle layer, and a bottom layer, wherein the bottom layer contacts the surface of the ~~electrical-component~~ circuit board, the top layer is smaller than the middle layer so as to form a ledge, and the ledge includes a plurality of discrete, spaced contact terminals; and

a plurality of conductors that extend down from the plurality of contact terminals of the electrical device to the plurality of contacts of the ~~electrical-component~~ circuit board so as to electrically connect the electrical device to the ~~electrical-component~~ circuit board.

31. (Previously presented) The assembly of claim 30, wherein the conductors comprise bond wires.

32. (Currently amended) The assembly of claim 30, wherein the contacts of the ~~electrical component~~ circuit board comprise contact pads provided on the surface of the ~~electrical component~~ circuit board.

33. (Previously presented) The assembly of claim 30, wherein the electrical device comprises two ledges formed on opposite sides of the electrical device, each ledge comprising a plurality of discrete, spaced contact terminals.

34. (Previously presented) The assembly of claim 30, wherein the electrical device is an atomic resolution storage (ARS) device.

35. (Currently amended) The assembly of claim 30, wherein the ~~electrical component~~ circuit board is a printed circuit board (PCB).

36. (Previously presented) An assembly, comprising:
~~an electrical component~~ a circuit board having a surface, a cavity formed within the surface, and a plurality of contacts provided on the surface adjacent an edge of the cavity;

an electrical device having a top layer, a middle layer, and a bottom layer, wherein the top layer is smaller than the middle layer so as to form a ledge, the ledge including a plurality of discrete, spaced contact terminals, wherein the top layer is disposed within the cavity of the ~~electrical component~~ circuit board such that contact

terminals on the ledge of the electric device align and contact contacts on the surface of the ~~electrical component~~ circuit board.

37. (Currently amended) The assembly of claim 36, wherein the plurality of contact terminals of the electrical device and the plurality of contacts of the ~~electrical component~~ circuit board are soldered together.

38. (Currently amended) The assembly of claim 36, wherein the plurality of contact terminals of the electrical device and the plurality of contacts of the ~~electrical component~~ circuit board are adhered to each other with electrically conductive adhesive.

39. (Previously presented) The assembly of claim 36, wherein the electrical device is an atomic resolution storage (ARS) device.

40. (Currently amended) The assembly of claim 36, wherein the ~~electrical component~~ circuit board is a printed circuit board (PCB).

41. (Currently amended) The assembly of claim 36, wherein the contacts of the ~~electrical component~~ circuit board comprise contact pads provided on the surface of the ~~electrical component~~ circuit board.

42. (Previously presented) The assembly of claim 36, wherein the electrical device comprises two ledges formed on opposite sides of the electrical device, each ledge comprising a plurality of discrete, spaced contact terminals.